

***United States Court of Appeals
for the Second Circuit***



**APPELLANT'S
REPLY BRIEF**

75-7362

**United States Court of Appeals
FOR THE SECOND CIRCUIT**

B

Docket No. 75-7362

PERMA RESEARCH & DEVELOPMENT COMPANY,
Plaintiff-Appellee,

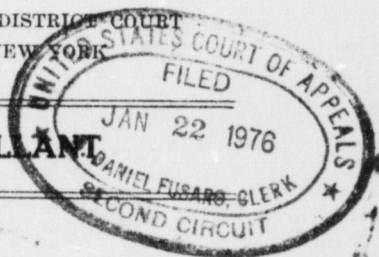
P/S

v.

THE SINGER COMPANY,
Defendant-Appellant.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

REPLY BRIEF OF APPELLANT



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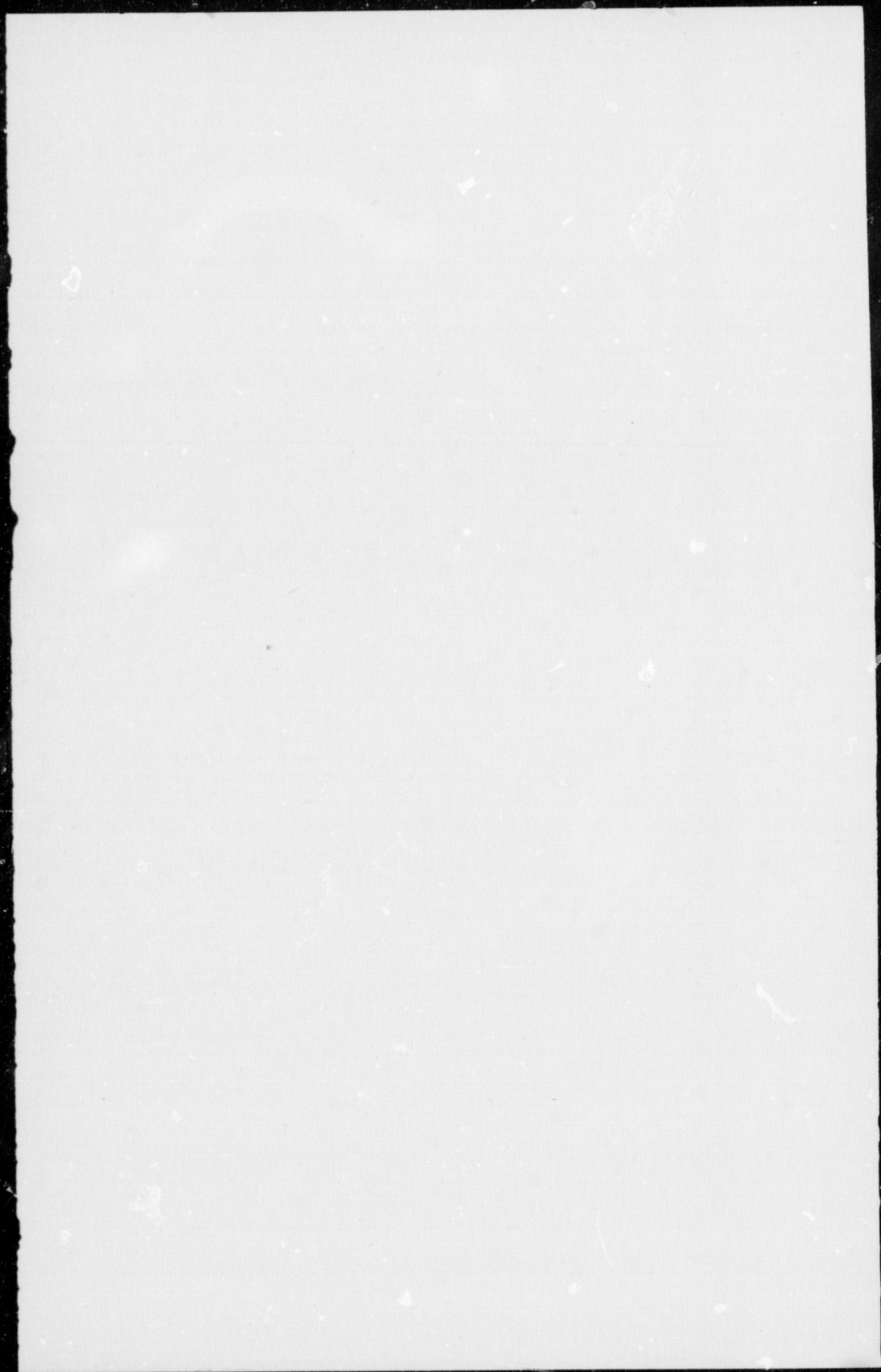


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PERMA RESEARCH & DEVELOPMENT COMPANY,
v. *Plaintiff-Appellee,*
THE SINGER COMPANY,
Defendant-Appellant.

**STATEMENT OF ISSUES AS
REFRAMED BY THE BRIEFS**

The first issue which Singer raised on this appeal was whether the court below committed error in imposing on Singer the implied contractual obligation to undertake the 14-15 month program of basic redesign and redevelopment which Perma's expert witness testified that Singer should have carried out to perfect the device and make it marketable (S Br 1-2, 13-15, 21-28; Tr 2511-48).*

Perma now unexpectedly concedes that the parties did not contemplate redesign of the device (P Br 48). Instead, Perma contends "Redesign' of Device [Was] Not Required" (P Br 24-25) and disparages as merely "one expert's opinion" the elaborate redesign program which it had presented at the trial as mandatory (P Br 22).

In its brief on appeal, Perma concedes that at the time of entering into the December contract none of the parties had in mind a redesign program such as Perma's expert presented at trial (P Br 48). Rather, Perma admits that it believed the design of the device to be "ready for mass-production" and looked to Singer merely for conversion to

* Our principal brief on appeal will be cited as "S Br". Perma's brief on appeal will be cited as "P Br".

mass production of "hand-made prototypes" which were already "'workable, usable and marketable'" (P Br 17, 48; Tr 1353, 1378, 1690-91).

The sole basis for an implied obligation to use best efforts to perfect the device would be the intention of the parties at the time of entering into the December contract (S Br 19-20; P Br 33). Both parties now agree that they intended Singer to do merely the engineering work necessary to convert workable prototypes to mass production (S Br 21; P Br 17, 48). In Perma's words, there is an "essential distinction between the design of an invention as embodied in a handmade sample and the design as modified to permit mass production" (P Br 48). Modification of a handmade sample to permit mass production does not, however, constitute redesign and redevelopment of the device (S Br 21; P Br 48).

At the trial, Perma presented through its expert Daniel Goor an elaborate program for redesign which it contended Singer "should have" followed in order to carry out its presumed obligation to use its best efforts to perfect the device (Tr 2513, 2511-48). As an initial step, Goor's redesign program would have required extensive computer simulation to determine whether the "fundamental configuration and . . . design concepts" (P Br 63) "could even feasibly do what the system was intended to do." (Tr 2519-20) Goor's program, which is described in detail at pages 8-11, *infra*, was a far cry from converting a workable prototype to mass production.

When Judge Duffy, relying expressly on Goor's testimony, held that the device could have been perfected and made marketable "with the proper engineering work done," he clearly referred to the Goor redesign program (Op 42).

Perma's concession as to the parties' intention, coupled with Perma's proof as to the necessity for redesign, requires a reversal of Judge Duffy's finding that Singer

breached its implied obligation to perfect the device so as to make it marketable. Moreover, the necessity for redesign demonstrates the validity of Singer's position that damages are speculative (S Br 46-61).

ARGUMENT

POINT ONE

The Court Below Erred in Holding that Singer Had an Implied Contractual Obligation to Use Its Best Efforts to Perfect the Perma Device

A. Judge MacMahon's Denial of Summary Judgment Was Improper

In denying summary judgment to Singer, Judge MacMahon found the existence of Singer's implied contractual obligation to use its best efforts to perfect the Perma device to be "so clear that he did not consider this to be one of the issues of fact remaining for trial." (P Br 49; *see* R 61, 308 F. Supp. at 748-49) This ruling was erroneous and requires reversal of Judge MacMahon's decision.

The papers which Perma submitted to Judge MacMahon were replete with statements to the effect that Perma did not intend that Singer undertake to perfect the device since the device was, according to Perma, "already perfected and marketable" (R 56, pp 13-14; *see* R 51, p 4; R 56, pp 6-7, 7-8; DX 53, pp 9-10; S Br 11-18). Perma's statements, which are contained in such formal documents as Perma's Rule 9(g) Statement and Perrino's affidavit, constitute judicial admissions. *See* IV J. WIGMORE, EVIDENCE § 1058, at 27 (Chadbourn rev. 1972); IX J. WIGMORE, EVIDENCE § 2588, at 586 (3d ed. 1940).*

* A binding or judicial admission is:

"... a formal act, done in the course of judicial proceedings, which waives or dispenses with the production of evidence, by conceding for the purposes of litigation that the proposition of fact alleged by the opponent is true." IV J. WIGMORE, EVIDENCE § 1058, at 27 (Chadbourn rev. 1972)

Perma's statements must be considered in light of the fact that when they were made they constituted Perma's only affirmative allegations as to Singer's breach of contract. Judge Bryan had dismissed all of Perma's allegations regarding Singer's breach contained in the complaint, including the allegation that Singer had no obligations whatever under the December contract (R 18, 28). No amended complaint was filed. In the absence of pleadings, both Singer and the court must necessarily rely on Perma's written statements as binding expressions of its contentions.

Perma contends that such statements are not binding, quoting dictum in *Ira S. Bushey & Sons, Inc. v. W. E. Hedger & Co.*, 40 F.2d 417, 418 (2d Cir. 1930) that admissions are not binding "except when formally made at trial" (P Br 46). But if this language was ever intended as a limitation, it has long since become outdated. In 1930, summary judgment was not yet a part of the federal practice. 6 J. MOORE, *FEDERAL PRACTICE* ¶¶56.01, 56.05, at 2071 (2d ed. 1975). Summary judgment proceedings are in lieu of trial. Both a sworn affidavit and a mandated Rule 9(g) Statement are at least as "formal" and are submitted with at least as much considered forethought as a statement "made at trial".

More recent decisions make it clear that binding admissions require no particular form or forum. *American Renaissance Lines, Inc. v. Saxs Steamship Co.*, 502 F.2d 674, 679 (2d Cir. 1974) (answer); *Lunsford v. Laird*, 441 F.2d 390, 391 (2d Cir. 1971) (appellate argument); *Matter of Peters*, 271 App. Div. 518, 523, 67 N.Y.S.2d 305, 310 (3d Dep't 1946), *modified on other grounds*, 296 N.Y. 974, 73 N.E.2d 560 (1947) (affidavits and brief); see MCCORMICK ON EVIDENCE § 262, at 630 (2d ed. 1972) (pleadings and stipulations by a party or his counsel); cf. FED. R. CIV. P. 36(b) (response to requests to admit).

A fact judicially admitted "is thereafter to be taken for granted; so that the one party need offer no evidence to prove it, and the other is not allowed to disprove it." IX J. WIGMORE, EVIDENCE § 2588, at 586 (3d ed. 1940).^{*} Thus, on the motion before Judge MacMahon, Perma's judicial admissions that it did not intend for Singer to perfect the device should have precluded the court from imposing an obligation to use best efforts to perfect the device. Since Judge MacMahon ruled with Singer that the device was not fail-safe and not marketable, no other issues remained for trial (R 61; 308 F. Supp. at 747-48). Judge MacMahon erred in denying summary judgment to Singer.^{**}

This Court need not be concerned that injustice will be done in holding Perma to the consequences of its admissions before Judge MacMahon. This is not a case where a technical trap has been sprung on the unwary because Perma has now switched back to its position before Judge MacMahon that "the product at all times was ready for mass production and was marketable" (R 56, p 8; see P Br 17, 48).

^{*} Perma argues that its binding admissions are offset by statements in Singer's reply brief before Judge MacMahon to the effect that "considerable time would be spent after the contract was entered into in attempting to perfect the device" (P Br 40, 47). But it is plain from a reading of the entire brief that Singer was using the word "perfect" in the sense of converting the prototype to mass production (R 55). Indeed, Singer's principal point on this issue was that since the device as designed was inherently not fail-safe Singer was "justified . . . in abandoning the project." (R 55, pp 3, 22-28)

^{**} Even if Perma's statements are not judicial admissions, they are at least "evidential admissions." See MCCORMICK ON EVIDENCE § 262, at 630 (2d ed. 1972). Such evidence, together with the absence of evidence to the contrary, compels both the determination that the parties did not intend for Singer to undertake to perfect the device and the consequent award of summary judgment to Singer. On a summary judgment motion, the parties' agreement as to the determination of a factual issue precludes the need for trial of that issue. *American Renaissance Lines, Inc. v. Saxis Steamship Co.*, 502 F.2d 674, 678-79 (2d Cir. 1974).

Perma argues that any error in Judge MacMahon's ruling does not constitute reversible error because Singer has had a full trial on the issue of the parties' intention (P Br 49-50). But the issue has not been fully tried. Judge Duffy signed a pre-trial order which imposed upon Singer the obligation to use best efforts "to perfect the product so as to make it marketable." (R 102, p 1) As Perma concedes, the pre-trial order "did not contemplate reopening the issue whether the parties intended that the contract impose that duty on Singer" (P Br 32).

Early in the trial, Singer pressed its contention that evidence should be received on the issue of the parties' intention with respect to undertaking such an obligation (R 119, Tr 1363-74). Judge Duffy responded that he was going to try only the issues set forth in his pre-trial order and that any relief would have to come from "our friends up on the 17th floor . . . at the end of the case" (Tr 1367-68). He repeatedly disallowed evidence relevant to the intention of the parties (*see* S Br at 28-29). Thus, Judge MacMahon's error in denying summary judgment was not cured by a full trial on the issue of the parties' intention.

B. Judge Duffy Erred in Finding that Singer Had an Implied Contractual Obligation to Use Its Best Efforts to Perfect the Device

In our principal brief we demonstrated that Judge Duffy had erred by imposing the implied best efforts obligation on Singer without considering any of a long list of "words or conduct" of the parties which were inconsistent with such an obligation (S Br 19-27).*

* It is not clear whether Judge Duffy predicated his ruling entirely on Judge MacMahon's decision or upon his own independent review. In any event much of the trial had been completed before Judge Duffy referred to the obligation as "an issue here," and thereafter he continued to exclude relevant evidence (Tr 2496; S Br 28-29). Fundamental fairness requires that a party defending a major lawsuit be permitted to know from the outset the issues which are in fact being tried (*see* R 102; Tr 1367-68, 1372-73; Fed. R. Civ. P. 16).

Perma attempts to becloud the issue by stating that "Singer's real, but disguised, claim is that this Court should determine the issue of intent *de novo*" (P Br 33). Perma then devotes the major portion of its extensive brief to a multitude of factual details which it contends support Judge Duffy's finding as to intent (P Br 1-59).*

But it was never Singer's intention to ask this Court to do the work which Judge Duffy erred in failing to do. *And now, in view of Perma's changed position, there is no longer any issue of fact as to the extent of Singer's implied best efforts obligation.* Both parties agree that Singer's obligation was to convert to mass production "workable, usable and marketable" . . . hand-made prototypes", a "*design* . . . ready for mass-production" (P Br 17) (italics in original).

Despite Perma's massive discussion of evidentiary detail (P Br 1-59), the issue is uncomplicated. Two simple operative facts compel a reversal of Judge Duffy's finding and decision. First, as Perma's engineering expert (Goor) has testified, an extensive redesign program would have been necessary to perfect the Perma device so as to render it marketable (Tr 2511-48). Second, as Perma has conceded in its brief on appeal, Perma looked to Singer for engineering help not for redesign but only for converting its "workable, usable and marketable" prototype to mass production (P Br 17, 48). A discussion of these two points follows.

1. Redesign of the Perma Device Would Have Been Necessary in Order to Render It Perfected and Marketable

Among Perma's blatant misstatements is its assertion without citation that both the unmarketability of the Perma device and the necessity for redesign were "issues of fact which the trial court resolved against Singer" (P Br 85).

*See Perma's reference to "additional factual bases for the court's findings *not specifically referred to in the opinion*" (P Br 34, n.37) (italics ours).

Judge Duffy unquestionably found the Perma device to be unmarketable (*see, e.g.*, Op 9, 18, 19, 42). Moreover, he necessarily found that redesign would have been required to perfect the Perma device.

Judge Duffy's ruling that the Perma device "could have been perfected and made marketable with the proper engineering work done" was explicitly based upon the testimony of plaintiff's expert engineering witness, Daniel Goor (Op 42). Goor's testimony as to the program which would have been necessary to perfect the device leaves no doubt as to the necessity for redesign (Tr 2511-48).*

Goor's description of the program was adduced by Perma's counsel through a previously prepared hypothetical question (Tr 2511-14), the importance of which was recognized by the court and counsel:

"The Court: We have arrived at that magic moment.
Mr. Grand: We have arrived at that magic moment." (Tr 2484)

Goor was asked "to assume" that Singer "was required to use its best efforts . . . to perfect the device so as to make it marketable." (Tr 2511) The question concluded:

"Now, I want you to state your expert opinion as to the appropriate steps which [Singer] should have taken after December 21, 1964, to manufacture and market the Perma anti-skid device, including its best efforts in collaboration with Perma to perfect it so as to make it marketable." (Tr 2513-14)

Goor testified that manufacturing should be suspended because the Perma device was neither marketable nor fail-safe on December 21, 1964 (Tr 2515-16, 2519-20, 2556).

* In the list of "significant work which remained to be done after December, 1964" contained in its argument entitled "'Redesign' of Device Not Required", Perma conveniently omits reference to anything resembling Goor's development program or even to computer simulation (a crucial aspect of Goor's program) (P Br 24-25).

Singer should then have commenced a 6 month "system evaluation" or feasibility study in which computer simulations similar to those introduced in evidence at trial would be performed (Tr 2524, 2522-27; *see* PX 123, 124, 125, 127, 128, 129, 132, 133, 133A, 134, 135, 143). The computer simulations would not even be of the actual Perma device or of any specific piece of equipment but merely "of a concept, of an idea" which Perrino had for an anti-skid device (Tr 3885, 2522; *see* S Br 41-43).

In such computer simulations the particular sizing of components or the particular dimensions would not be important "because the premise is that these could be changed." (Tr 3885-86) The purpose of the simulations would be to determine if a hypothetical system model "could appear to be able to consistently meet the guidelines that we felt were necessary to *design*—to build the system to." (Tr 2523; *see* Tr 2676) (*italics ours*)

Assuming that this 6 month evaluation showed the "concept" to be feasible,* Goor's program would have proceeded to the stage of building a prototype.** With such prototype, there would be an extensive 5 month "failure analysis program" using computer programming in some undefined manner (Tr 2930-31). This analysis, relating to the fail safety of the device, would be "an extremely critical thing" in which decisions would be made as to "what components need to be completely redesigned" (Tr 2530).

Goor's testimony as to the necessity for a "failure analysis program" destroys Perma's present argument that the fail-safe problem could have been easily resolved by the addition of a time-delay switch or valve to the modulator com-

* In the event the concept were not feasible, the whole program would have terminated (Tr 2527).

** Goor clearly did not intend using any available prototype of the Perma device in his program. After testifying that an available prototype could have reduced his 14-15 month development program to 12 months or less (Tr 2541-42), he stated that the Perma development program would have taken approximately 14 months (Tr 2543-44).

ponent (P Br 10 n.9, 21-22, 27 n.30, 100). Only *after* such an analysis had been performed would one be able to determine which components had to be "completely redesigned" (Tr 2530). Inasmuch as the failure analysis has never been performed, Perma is in no position to assert that the fail-safe problem could have been cured by the mere addition of a time-delay switch or valve.*

Having performed the hypothetical failure analysis, Goor would next have completed a 5 month stage of making pre-production samples and conducting environmental and reliability testing on the pre-production samples (Tr 2532-37). At this stage, Perrino's "concept", as embodied in a prototype about which we know no characteristics (other than the fact that after the prototype had been built its components may have been "completely redesigned"), would be ready for the "introduction phase" to the process of converting from prototype to mass production (Tr 2535-37). After yet another phase of fleet buildup and testing as well as conversion to mass production, the

* Moreover, the addition of such a switch or valve to the Perma device would have involved an unacceptable time delay, resulting in substantially increased stopping distances (Tr 5207-08, 5799-800). Contrary to Perma's argument (P Br 27 n.30), this time delay would not have been acceptable to the OEMs. All OEM systems have electronic fail-safes built into their control modules which monitor the sequence of events and *immediately* restore brakes upon failure (PX 163, p 13; Tr 7308-09, 6583-87; see PX 166, pp 5-60-61).

The longer time delays which Perma argues to be acceptable (P Br 27 n.30; see P Br 21) are irrelevant because they relate to switches or valves which detect failures during exercise cycles (when the engine is first started) (PX 153, p 5-47; PX 155, p 5-60; PX 156, p 5-57; PX 163, p 17) and restore the underlying braking system *before* the anti-skid device is activated (PX 153, p 5-50, PX 154, p 14; PX 156, p 5-60).

The addition of such switches or valves to the Perma device, which was dependent upon vehicle motion for all operation (PX 13, pp 1, 13, 16; see PX 5A) and could not incorporate an exercise cycle, could do no more than detect a failure during emergency operation and restore normal braking long *after* an accident might have occurred. Even Perma cannot seriously contend that the 30-60 second delay which these switches and valves entail (PX 154, p 14; PX 163, p 13) would be acceptable in an emergency situation.

hypothetical device would finally be ready for release for production (Tr 2537-41).

Goor's program would have required 14-15 months (until release for production), 20 additional highly qualified engineers and technicians and \$750,000 (Tr 2543-44; S Br 14-15).

Goor's testimony, therefore, compels the conclusion that the "engineering work" necessary to perfect the Perma device was in fact redesign and not the mere conversion of a workable prototype to mass production.

2. It Was Not the Parties' Intention that Singer Redesign the Perma Device

(a) Perma Has Conceded that the Parties Did Not Contemplate Redesign of the Device

In its brief on appeal, Perma has conceded that in December of 1964 the parties did not contemplate redesign of the device (P Br 48). More specifically, Perma has admitted that at the time of entering into the December contract, Perrino believed that the design of the device was "ready for mass production" and looked to Singer merely for the conversion of "'workable, usable and marketable'" prototypes to mass production (P Br 17, 48; see Tr 1353, 1378, 1690-91).

While Perma's present position is inconsistent with its presentation at trial of the Goor program, it is thoroughly consistent with Perrino's personal belief as disclosed in his affidavit to Judge MacMahon (DX 53, pp 9-10) and in his testimony on cross examination at the trial (Tr 1325, 1327, 1351-53, 1378, 1690-91). Perrino testified, for example, that his "concern was getting it into mass production" and "[t]his is what we were looking to Singer for." (Tr 1325) (*italics ours*) Similarly, Perrino stated:

"... I believe that the preproduction samples or pre-production product and the concept was ready for mass production. . . .

"Q. You referred in your answer I believe to concept ready for mass production. What do you mean, the concept was ready for mass production?

"A. I mean that the product was invented and developed to the stage where preproduction samples were ready to what we believed ready for mass production. The product worked, it did the things we believed it did, it was supposed to do. But when it was put in mass production or when it was to be put in mass production there were many things that had to be resolved and I believe that we needed engineering help in this respect, types of materials, how they would affect wear, because when you put something in mass production you use sometimes different materials or different methods, sometimes you change a part so that you can facilitate manufacturing . . .

"Q. Are you saying therefore that the design was ready for mass production?

"A. Yes." (Tr 1351-53)

Thus, Perrino's testimony confirms that the parties intended that Singer undertake merely the obligation to use its best efforts to put into mass production a device which they thought had a perfected design.*

The engineering work inherent in converting a "workable, usable and marketable" (Tr 1691) product to mass production is, however, radically different from the redesign which Perma's expert testified would have been necessary to render the Perma device marketable (*see* pp 8-11, *supra*). Only at the tail end of Goor's redesign program would one be in a position to convert a perfected prototype or pre-production sample to mass production.

* Contrary to the statement in Judge Duffy's opinion, Singer's contention is not, and has not been, that "no further engineering work was contemplated by the parties as of December 21, 1964" (Op 19). Singer contemplated doing the engineering work inherent in mass producing a perfected device (selecting the proper metals for mass production, etc.), and in adapting the device to new models of cars as they came onto the market (*see* DX 191, p 4; DX 656, pp 3-5).

In summary, Perma's proof (1) that at the time of entering into the December contract the parties did not contemplate redesign, but rather conversion of a marketable product to mass production and (2) that the product was in fact unmarketable and required redesign compels a reversal of Judge Duffy's decision.

(b) *Perma's Attempt to Refute the Evidence as to the Absence of an Intention to Perfect and Redesign the Device Is Unfounded*

As we pointed out in our principal brief, there is abundant evidence in the record that neither party intended that Singer should assume an obligation to perfect and redesign the device (S Br 21-27). Although Perma has devoted the major part of its brief to an attempt to controvert this evidence (P Br 1-59), its concession that the parties did not intend that Singer should undertake to redesign the device renders the apparent controversy largely academic. Nevertheless, we wish to deal with a few principal points to demonstrate that Perma's concession is consistent with the underlying facts.

According to Perma, there are five major areas of evidence supporting Judge Duffy's finding as to the parties' intention: (1) "Perma's financial plight" (P Br 34-35), (2) "Negligible sales of anti-skid device between June and December 1964 due to imperfections" (P Br 35), (3) "Singer's knowledge of the problems, and of the need to perfect the device before marketing; and contemporaneous efforts to this end" (P Br 35-36), (4) "Singer's offer of engineering expertise as an inducement to Perma to assign the patents" (P Br 37), and (5) "The terms of the December contract and the technical services contract as evidencing an intent to perfect" (P Br 37-40).

"Perma's financial plight" (P Br 34-35), although supported by the record, is irrelevant to the question of an implied obligation to perfect. Perma was looking to Singer

not to perfect the device, but to assume Perma's debts and the sizeable expense of marketing the device (*see* Tr 6071-75), which Singer in fact did (PX 60A, pp 2, 3, 30-46).

Perma's second and third points, namely that the negligible sales of the device between June and December 1964 as well as Singer's experience with the device under the June contract evidence Singer's intention in December 1964 to perfect the device (P Br 35-37), are unfounded.

The June contract was merely a *manufacturing* contract, pursuant to which Singer agreed to manufacture the device "in accordance with specifications and blueprints furnished by Perma" (PX 35, p 6; *see* PX 23). In the testing necessary to facilitate manufacture,* Singer did, however, encounter certain hardware problems which prevented shipment of the device (P Br 35). The most significant of these are listed at page 12 of Perma's brief. All of them were, in Perma's words, "problems encountered with mass-produced hardware" and "although serious, were not difficult to solve." (P Br 12 n.11) Perma concedes that even Romel "with his limited engineering skills" solved all of them except for the increased pressure output required by 1965 model cars (P Br 12, 24-25).

Perma's assertion that Kloby was aware in 1964 of the device's lack of fail safety is based on a gross distortion of the record (*see* P Br 15, 36; Tr 6249-52). Kloby stated that in 1964 he was aware of the cut O-ring manufacturing problem,** but did not think of it as indicating a lack of fail

* During the June contract, Singer analyzed the device from a manufacturing point of view, but not from a performance point of view (Tr 5552). Its testing did not relate to the overall design, fail safety or performance of the device, but merely to its components or subassemblies (Tr 4148-49, 4151, 4233-38, 4243-44, 4467, 5552).

** In September, 1964, the pressure switches were found to leak (Tr 4310). Disassembly revealed that O-rings (washers) had been cut during the assembly operation because the angle of the chamfer on the bore had been improperly specified (Tr 4311, 4331-32). Changing the angle cured this manufacturing problem (Tr 4311, 4331-32).

safety (Tr 6250). Moreover, he thought that the cut O-ring problem had been solved in 1964 (Tr 6251, 6276), as Perma now concedes (P Br 25). Although he knew in 1965 that the device was not fail-safe in 1964, he did *not* know in 1964 that it was not fail-safe (Tr 6252). In Kloby's words, "[p]rior to signing the contract, I thought it was fail-safe" (Tr 6249).*

Perma's argument as to Singer's "experience" under the June contract conveniently ignores Perrino's repeated assurances up to December 1964 that the overall design of the device had been perfected (*see* Tr 4344-45, 4413-20, 4428-29).** Similarly, it ignores the testimony as to Singer's belief in December of 1964 that all the problems which had been encountered under the June contract had either been solved or were readily solvable so that the device was ready for production (Tr 4495-506, 6897-900; *see* Tr 4417).

* Perma's other assertions as to Singer's knowledge of the device's lack of fail safety in 1964 are equally lacking in merit. Although Kloby had heard of a car equipped with a Perma device losing its brakes (P Br 15), he did not even know if such loss was related to the Perma device (Tr 6175).

The Romel memorandum quoted by Perma (P Br 15) related to the cut O-ring manufacturing problem which was resolved prior to December 1964 (PX 38A, p 2; Tr 4500; *see* p 14 n.**, *supra*).

Romel's car gear redesign idea (P Br 15) (a) did not relate to his knowledge of the fail safety of the device and (b) had been abandoned prior to December 21, 1964 when Perrino assured him of the perfection and testing of the design of the device (Tr 4343-45, 4353, 5550, 5563-64).

MacDuff's testimony (P Br 15) is irrelevant to the question of Singer's knowledge of the lack of fail safety because it assumes that the engineer in question is undertaking to analyze the fail safety of the device rather than merely to manufacture it (Tr 7290-91).

** For example, in September 1964 Romel expressed concern about the reliability of the device in a memorandum to his superiors and suggested developing a simulation test stand to test the entire system rather than only subassemblies (PX 39 (*quoted at* Op 14); Tr 4342-43). Perrino, however, told Romel that such testing was not necessary, for Perma and an "independent lab" had already done all the requisite testing (Tr 4418, 4343-45). He assured Romel that the overall design of the device had been perfected and that the device was fail-safe (Tr 4344-45, 4414, 4418). Consequently, Romel abandoned the idea of building the test stand (Tr 4345).

Singer did in fact resume production of the device shortly after entering into the December contract (Tr 4516-17; see DX 409, p 3; Tr 3192, 4672-73).

Perma's fourth argument for an implied obligation to perfect, Singer's purported "offer of engineering expertise" (P Br 37), is unpersuasive. Even if Kloby had made the purported statement that he would assign additional engineers to the project,* it would reflect no more than Singer's realization that engineering work was necessary to place the existing product in mass production.** As Perrino testified, at the time of entering into the contract Perrino "*did not discuss anything about perfecting the device.*" (Tr 1340; see Op 39) (italics ours)

Perma's fifth point, namely that the parties' intention for Singer to perfect the device can be inferred from the terms of the December contract and the technical services contract (P Br 37-40; see Op 39), is equally lacking in merit. The six month technical services contract (DX 656, pp 3-5) merely evidences the parties' intention to convert an existing product to mass production. It provides that Perma render assistance to Singer in such matters as the preparation of documents and materials "from which the manufacturing equipment, tools, dies, and the like can be made for use in manufacturing the Product" and "the adaptation of the Product for use on all makes of automobiles" (DX 656, pp 3-5; see DX 191, p 4; Tr 6075).***

* Kloby unequivocally denied making such a statement (Tr 6098-99).

** Perma's attempt to bolster its argument by Kloby's purported "admission" that Singer would be making "continuing design changes and improvements in the product" (P Br 37) reflects at best a misreading of the transcript. Kloby in fact testified (on cross examination) that he expected Singer "would be making improvements, cost improvements, manufacturing changes, things of that nature." (Tr 6194-95)

*** Although there is a reference to "continuing design and engineering and improvement" in the technical services contract, this is similar to the phrase "joint continuing engineering supervision and

The fact that this type of work was expected to be performed within the first six months after entering into the December contract shows that the parties did not contemplate an extensive redesign program, such as that suggested by Goor (*see* Tr 2511-48). Moreover, the fact that Singer was looking to Perma, with its limited facilities and personnel, to perform the required engineering services negates any inference of an intention to perfect and redesign the device (DX 656, pp 3-5; DX 191, p 4).

In summary, Perma has proven by its own witnesses (1) that the parties did not intend in December of 1964 that Singer undertake to redesign the device and (2) that redesign of the device would have been necessary. Perma's concession of the absence of intention to perfect and redesign is fully supported by the material cited at pages 21-27 of our principal brief.

We respectfully submit that Judge Duffy's ruling that Singer had an implied obligation to use best efforts to perfect the device should be reversed.

POINT TWO

Perma's Arguments that the Computer Simulations Were Properly Admitted in Evidence Are Without Merit

The question of whether the Perma device was perfectible was a major issue at trial (Op 41) and determinative of both liability and damages (Op 41-42, 46). *Peck v. Shell Oil Co.*, 142 F.2d 141 (9th Cir. 1944); *Kraus v. General Motors Corp.*, 120 F.2d 109 (2d Cir. 1941). Perma's evidence that its device was perfectible, that it "could even feasibly do what the system was intended to do" (Tr 2519-20), consisted of the computer simulations prepared by DeVilliers and relied upon by Goor and the court below (Op 41-42). As

development of the Product" in the June manufacturing contract (*compare* DX 656, p 4 *with* PX 35, p 5). Not even Perma contends that an obligation to perfect can be inferred from the June contract.

discussed in our principal brief, the computer simulations are inadmissible and Judge Duffy's decision is founded upon incompetent evidence (S Br 32-46).

A. Perma's Argument that the Program Need Not Be Disclosed Is Untenable

1. The Cases Cited by Perma Require Disclosure of the Program

Perma's citation of *United States v. Russo*, 480 F.2d 1228 (6th Cir. 1973), *cert. denied*, 414 U.S. 1157 (1974), *United States v. Dioguardi*, 428 F.2d 1033 (2d Cir.), *cert. denied*, 400 U.S. 825 (1970), and *United States v. De Georgia*, 420 F.2d 889 (9th Cir. 1969), for the proposition that computer programs need not be disclosed as a prerequisite for admission of computer simulations is misplaced (P Br 65-67).

In *Russo* and *De Georgia*, the reliability and trustworthiness of the computer programs were established by proof of their use in the normal course to maintain business records. *United States v. Russo*, 480 F.2d at 1241; *United States v. De Georgia*, 420 F.2d at 891, 893-94. Without recourse to the business records exception, which Perma has never claimed,* reliability and trustworthiness could have been established only by making "the program and other materials needed for cross-examination of computer witnesses, such as flow-charts used in the preparation of programs, available to [Singer] a reasonable time before trial." *United States v. Dioguardi*, 428 F.2d at 1038; Federal Judicial Center, *Manual For Complex Litigation*

* Even had the business records exception been available, Perma's computer simulations would have been inadmissible for want of proof of reliability and trustworthiness. In *United States v. Russo*, the underlying data was "in court . . . and available for checking by counsel for the defendants", 480 F.2d at 1235, 1242; "the reliability of its output was verified", 480 F.2d at 1240; and the opposing party had both notice and a summary of the computer's output 4½ months before the start of trial. 480 F.2d at 1242-43. Perma met none of these conditions.

§ 3.50 (1973) [hereinafter cited as "*Manual for Complex Litigation*"].

United States v. Dioguardi, 428 F.2d 1033 (2d Cir.), cert. denied, 400 U.S. 825 (1970), announced the rule that the party opposing the introduction of computer-generated evidence created for the purpose of litigation and not qualifying under the business records exception is "entitled to know what operations the computer had been instructed to perform and to have the precise instruction that had been given", i.e., the program. 428 F.2d at 1038. Nevertheless, the rule was not applied in *Dioguardi* due to a number of reasons which even Perma cannot argue pertain to this case.

In *Dioguardi*, the testimony based upon the results of the computer's operations "was a ~~quite~~ unnecessary frill", 428 F.2d at 1039, for "there was ~~no~~ real dispute on the issue of the use which was affected by the accuracy of the computer." 428 F.2d at 1040 (concurring opinion). In the instant case, Goor's testimony that the Perma device was perfectible "[o]n the basis of the computer simulations produced by DeVilliers" (Op 42) was determinative of both liability and damages (Op 41-42, 46).

Perma's computer simulations were created by a complex program which performed a "myriad number of calculations" (Tr 2990) involving variable and asymptotic constants (Tr 3862, 3082, 3841-43) in conjunction with second order linear differential equations (Tr 3783-90, 3912-13) combined by fourth order integration techniques (P Br 62; Tr 2991). Conversely, the program in *Dioguardi* did no more than simple addition and subtraction and, being "of utmost simplicity", could have been duplicated manually. 428 F.2d at 1038.

The results of the computer's operations in *Dioguardi* were verified by test deck and by hand. 428 F.2d at 1037. DeVilliers did not employ a test deck (Tr 3877-78) or otherwise verify the computations and can only offer his "belief", based on hearsay conversations with Perrino

(Tr 3022, 3078), that the results of the computer simulation were valid.

In *Dioguardi*, the Court noted that "[e]ven now, two and a half years after the trial, we are pointed to no error in the computer's calculations." 428 F.2d at 1039. In this case, we point to errors on the faces of the printouts (S Br 40-41).

Perma's computer simulations do not fall within any of the extenuating circumstances found in *United States v. Dioguardi*, 428 F.2d at 1037-40. Thus, the rule announced in *Dioguardi* that "the program [must be] available for defense scrutiny and use on cross-examination if desired" is applicable. 428 F.2d at 1038. The admission of the computer simulations in evidence without disclosure of the fundamental information contained in the program was prejudicial error requiring reversal of the decision below. *Berguido v. Eastern Air Lines, Inc.*, 317 F.2d 628, 632 (3d Cir.), *cert. denied*, 375 U.S. 895 (1963).

2. Singer Was Denied Effective Cross-Examination

Perma argues that there was no need for disclosure of the computer program because DeVilliers was cross-examined about *which* parts and components were and were not included in the simulations (P Br 68-69). The absence of the program, however, foreclosed cross-examination on the basic issues of *how* the simulations were performed, *what* logical and mathematical assumptions were made, *when* and under what conditions the assumptions were operative, *why* the assumptions were made and *what* the results would have been had different assumptions been employed.

In cross-examining DeVilliers, Singer had the right to know:

"... the basis of his computations; to test the validity of said basis, including whatever assumptions he made, if any, and what he did regarding the information available to him; to ascertain his method of

computation and to test its validity, etc." *Berguido v. Eastern Air Lines, Inc.*, 317 F.2d at 632.

This fundamental information, which was to be found only in the undisclosed program and logic charts (Tr 7941), was necessary to meaningful cross-examination. *United States v. Dioguardi*, 428 F.2d at 1038; *Manual for Complex Litigation* §§ 2.717, 3.50.

3. Perma's Computer Simulations Could Not Be Reproduced

Perma argues that disclosure of the program was unnecessary because "[a]ll of the formulas and numerical constants comprising the computer input were in evidence . . . [and] Singer accordingly had ample opportunity to reproduce the computer simulation." (P Br 69) This argument blithely ignores the determinative role of the program (S Br 34-37) and the fact that Perma did not disclose all of the input data, constants and assumptions employed in the computer simulations on the ground that they were proprietary (P Br 71). Singer was therefore not in a position to "reproduce" the computer simulations for the purpose of either verification or cross-examination.

According to DeVilliers, "any computer program has got immense amounts of data, you know, internal to it." (Tr 3797) Data admittedly internal to DeVilliers' computer program was not contained in any of the exhibits offered as foundation (Tr 3851-53), but was obviously necessary to duplication of the computer simulations (S Br 38-40).

DeVilliers admitted that he did not disclose all of the logical and mathematical assumptions used in the computer simulations (Tr 3874-76). Without full knowledge of all mathematical and logical assumptions, the computer simulations were neither reproducible (Tr 7940-41) nor admissible. *Berguido v. Eastern Air Lines, Inc.*, 317 F.2d at 632.

Perma concealed even the input data processed by the program. Numerical values claimed to be input (PX 135;

Tr 2985; *see* P Br 69) were in fact recomputed by undisclosed processes (Tr 3014) before they were entered into the computer and used by the given equations (Tr 2987-88; S Br 39-40). The portion of the actual input data disclosed after recomputation (Tr 3013) was admittedly incomplete and only

“... represents *some of the input data and some computer data* that is relevant” (Tr 2997) (*italics ours*).

The computer simulations could not be reproduced without the program, all of the input data that is relevant and all computer data that is relevant.

4. The Proprietary Nature of the Computer Program Did Not Obviate the Requirement that a Full Foundation Be Laid

Perma's next argument, that the computer program need not be disclosed because it is a trade secret proprietary to its authors (P Br 71-72), is itself an admission that the program contains relevant data, assumptions or other determinative matter not disclosed at trial. If Perma's computer simulations were reproducible (P Br 69-70) because the program did nothing more than solve the given equations with the given data in an obvious and repetitive fashion (*see* Op 41-42; P Br 62), its “secrets” were revealed when the printouts and “foundation” exhibits were offered in evidence (Tr 3015-16).

Even assuming a legitimate proprietary interest, Perma's failure to lay a full foundation, including disclosure of the “proprietary” methodology and assumptions contained in the program, renders the computer simulations inadmissible. *People v. Quackenbush*, 44 App. Div. 2d 736, 354 N.Y.S.2d 458 (3d Dep't 1974). Singer is willing to concede that the computer program is proprietary, provided that Perma pays the price for its protection.

B. Expert Opinions Based on Hearsay Are Inadmissible

Perma's argument that the hearsay objection was not available with respect to the computer printouts because they were not offered for their truth (P Br 72-74) gets full marks for imagination and ingenuity, but amounts to a confession of error. If the computer simulations upon which Goor relied were not offered for their truth, then Goor's opinion of perfectibility could hardly have been offered for its truth.

The computer simulations were offered without limitation (Tr 3014-16) and were thus received for all purposes, including the truth of their contents (Op 41-42; see Tr 2461-64). Perma sought no exception to the "settled and unquestioned law that opinion evidence must be based on facts in the record or personally known to the witness". *Cassano v. Hagstrom*, 5 N.Y.2d 643, 646, 159 N.E.2d 348, 349, 187 N.Y.S.2d 1, 3 (1959); *Carroll v. Magnolia Petroleum Co.*, 223 F.2d 657, 664 (5th Cir. 1955).

In support of its sweeping assertion that expert opinion may be based on hearsay, Perma cites cases (P Br 73) which merely hold that "... [a]n exception is recognized when an expert is testifying as to value" of comparable sales in condemnation cases.* *United States v. 5139.5 Acres of Land*, 200 F.2d 659, 662 (4th Cir. 1952); *United States v. Sowards*, 339 F.2d 401, 402 (10th Cir. 1964).

Perma's argument grossly misstates even the narrow exception upon which it seeks to rely. The computer simulations were not concerned with "comparable sales", but rather sought to prove that the subject of the lawsuit,

* Perma also cites *Reid v. Quebec Paper Sales & Transportation Co.*, 340 F.2d 34, 38 (2d Cir. 1965), wherein an examining physician was allowed to relate statements made to him by a plaintiff patient in the course of testifying about his diagnosis. This, of course, is another widely recognized exception to the rule that expert opinion may not be based on facts not in the record. *Meaney v. United States*, 112 F.2d 538 (2d Cir. 1940); VI J. WIGMORE, *Evidence* §§ 1720-21 (3d ed. 1940); Notes of Advisory Committee on Proposed Rule 703, FED. R. EVID., 28 U.S.C.A.

the Perma device, could have been developed to satisfy existing marketability criteria (Tr 2523-24). Even in valuation cases, expert opinion concerning the subject property and the use to which it could be developed must be based on facts in the record. *Triple Cities Shopping Center, Inc. v. State*, 26 App. Div. 2d 744, 272 N.Y.S.2d 207 (3d Dep't 1966), *aff'd without opinion*, 22 N.Y.2d 683, 238 N.E.2d 912, 291 N.Y.S.2d 801 (1968). Perma's computer simulations violate the rule in valuation cases (as elsewhere) that "a speculative or hypothetical arrangement in the mind of the claimant may not be accepted as the basis for an award." *In re City of New York (Broadway Cary Corp.)*, 34 N.Y.2d 535, 536, 309 N.E.2d 870, 871, 354 N.Y.S.2d 100, 101 (1974).

C. There Was No Substantial Similarity of Condition

Perma contends that the computer simulations "satisfied the conditions of substantial similarity" (P Br 77) upon a claim that all of input data was derived from "drawings and other documents in evidence" (P Br 62; Tr 2985). This is bewildering argument in light of Perma's continuing assertions that its computer simulations were "not . . . intended to show the real-world performance of a specific piece of hardware" to be found in the record or elsewhere (P Br 63; Tr 3885-86).

The drawings and specifications in evidence relate only to devices manufactured by Singer and Worcester Stamped Metal Company and define the device as it existed in 1965 or earlier (Tr 332-34). But Perma insists that "[t]he simulations are not a test of a particular piece of equipment manufactured by [T]he Singer Company or Worcester Stamped Metal" (Tr 3887), and that DeVilliers did not "attempt to recreate a condition or a situation as it existed in 1965." (Tr 3885) Where did the specifications of the simulated device come from and what are they sub-

stantially similar to? Perma has never answered these questions.

Perma now repudiates its computer simulations by stating that the results are not substantially similar to performance that could be achieved by a real-world Perma device:

"... the numbers shown on the printouts as reflecting the solutions to mathematical problems based on various hypotheses do not mean that a particular piece of hardware modelled on the Perma device would achieve a particular stopping distance in feet under the assumed conditions." (P Br 63)

Thus, Perma concedes that the results, as well as the input to the computer simulations, are not substantially similar to anything that is or could be in evidence. That being so, Goor's opinion "[o]n the basis of the computer simulations" (Op 42) is inadmissible.

D. There Was No Pre-Trial Notice

Perma's argument that it provided pre-trial notice of the computer simulations is simply answered (P Br 64, 80-84). Perma's letter of November 30, 1973 (Ct X 1) was not notice and was not pre-trial.

Perma's letter stated that Goor's testimony would be based, among a number of other things, upon "simulated operation" of the device (Ct X 1, p 2). Nowhere does this purported "notice" mention the word "computer" or otherwise impart knowledge that the "simulated operation" would be accomplished by mathematical hypothesis rather than by actual or physical manipulation.*

Perma's lengthy argument fails to address the fact that its "notice" was due "a reasonable time before trial" accom-

* Prior to November 30, 1973, the record was rife with references to physically simulated operation of the Perma device on test stands (PX 19, p 15; PX 20, p 6; Tr 24, 28, 143, 144, 155, 2088-89, 2119).

panied by "the program and other materials needed for cross-examination of computer witnesses". *United States v. Dioguardi*, 428 F.2d at 1038; *Manual for Complex Litigation* §§ 2.717, 3.50.

E. There Was No Other Basis For Goor's Opinion of Perfectibility

Perma, ignoring entirely Judge Duffy's condition that Goor's "whole opinion gets thrown out" (Tr 2463) if the computer simulations were not admitted in evidence, argues that "a ruling that the trial court erred in receiving them would not in any event affect the admissibility of Goor's testimony"* (P Br 84. *See also* P Br 60 n.62). Perma's argument appears to be that the White, Ford and Cadillac test reports (PX 19, 21; DX 12) provide an independent basis for Goor's opinion (P Br 61).**

The fact and extent of Goor's reliance upon the computer simulations are found in Judge Duffy's opinion:

"On the basis of the computer simulations produced by DeVilliers, Goor testified that the Perma Anti-Skid Device could be made into a marketable product." (Op 42)

Perma's argument ignores the testimony of its own expert. Goor testified that the results of the test reports were of questionable reliability and so "contradictory" as to require the suspension of manufacture and the undertaking of a "massive" \$100,000 computer simulation (Tr

*"The Court: As such, we are taking it all subject to connection. "You have to recognize that this is a very dangerous way of proceeding, and I assume, Mr. Grand, that you do recognize it, to have an expert and put it in subject to connection and he testifies to his opinion on the basis of something that is subject to connection. *If you don't make the connection, the whole opinion gets thrown out.*"

"Mr. Grand: *I understand that.*" (Tr 2462-63) (italics ours)

** The computer simulations cannot provide corroboration for the test reports (*see* P Br 64) because DeVilliers simulated a different device (P Br 63; Tr 3885-86, 3887).

2637) in order to determine whether the Perma device "could even feasibly do what the system was intended to do." (Tr 2519-20)* It was only with the "benefit of hindsight from the computer runs" that Goor was able to opine that "the system could have been made to meet the specifications that we intended for it to meet" (Tr 2524). There was no other basis for Goor's opinion and the decision of the court below should be reversed.

POINT THREE

The Award of Damages Should Be Reversed

A. Perma Did Not Satisfy Its Burden of Proving the Existence of a Market For the Perma Device

1. Perma Had the Burden of Proving that the Existence of a Market For the Perma Device Was Not Speculative

Perma, not Singer (P Br 85), seeks to confuse the law regarding proof as to the fact of damage. Perma subtly implies that Singer had the burden of proving that there was no market for the Perma device by blurring the distinction between who has the burden of proof as to the fact of damage and what evidence is sufficient to meet that burden. Further, Perma blurs the distinction between the

*The computer simulations formed the basis for Goor's opinion that the Perma device could meet his functional or performance criteria (Tr 2524; see Tr 2519-20, 2668, 2674-76), stability (Tr 2689; see Tr 2464), steerability (Tr 2689), stopping distance (Tr 2568), governor sensitivity (Tr 2565), capacity to sense road conditions (Tr 2565), "modulation" (Tr 2569-70, 2816), that the device did not lock and unlock the wheels (Tr 2570), cycling frequency (Tr 2570-71) and the critical relationship between wheel-speed as sensed by the governor and braking (Tr 2559).

degree of proof necessary to meet plaintiff's burden regarding the fact of damage and the degree of proof necessary to meet plaintiff's burden regarding the calculation of damages.

Perma does not cite a single case in which a defendant had the burden of proof regarding damages. Rather, Perma initially cites *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946) (P Br 86). Not only is *Bigelow* confined to the subtleties regarding the quantum of evidence a plaintiff must establish to provide a non-speculative basis for awarding damages, but as this Court recently reaffirmed: "[t]he *Bigelow* rule . . . does not extend to uncertainty as to the fact of damages." *Simon v. New Haven Board & Carton Co.*, 516 F.2d 303, 306 (2d Cir. 1975) (italics in original). Uncertainty as to the fact of damage is not to be cast on the wrongdoer. *Id.*

The two other cases upon which Perma principally relies to argue that Singer must bear the burden as to the fact of damage provide no greater support for this erroneous proposition. *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100 (1969), is an antitrust case in which the Court explicitly stated that the plaintiff had the burden of proving that it suffered damage as a result of the defendant's antitrust violations. 395 U.S. at 114. The Court then held that the strong case plaintiff presented regarding damages satisfied this burden. When doing so, the Court reiterated the basic rule that "the factfinder is not entitled to base a judgment on speculation or guesswork." 395 U.S. at 124.

Fontana Aviation, Inc. v. Beech Aircraft Corp., 432 F.2d 1080 (7th Cir. 1970), *cert. denied*, 401 U.S. 923 (1971), the other case upon which Perma principally relies, is closely analogous to *Zenith*. It also is an antitrust case in which the court acknowledged that the plaintiff bore the burden of proving the fact of damage. 432 F.2d at 1086.

The applicable law is clear. Appellate courts repeatedly have reversed awards of damages when they have found that the plaintiff failed to meet its burden of proving that the fact of damage was not speculative. Plaintiff unquestionably has the burden of proving the fact of damage. *25 Fifth Ave. Management Co. v. Ivor B. Clark, Inc.*, 280 App. Div. 205, 208-09, 112 N.Y.S.2d 117, 119-20 (1st Dep't), *aff'd without opinion*, 304 N.Y. 808, 109 N.E.2d 469 (1952). And the burden can only be met by evidence which proves that the fact of damage is not speculative. *Friedman v. Golden Arrow Films, Inc.*, 442 F.2d 1099, 1107 (2d Cir. 1971); *Jame Wood General Trading Establishment v. Coe*, 297 F.2d 651, 658 (2d Cir. 1961). A review of the record in the instant case establishes that Perma did not satisfy this burden and that Judge Duffy's award of damages to Perma for lost royalties should be reversed.

2. Perma Did Not Define the Anti-Skid Device For Which It Had the Burden of Proving the Existence of a Market

Perma must prove the existence of a market for the Perma anti-skid device to prove that it suffered any damage from Singer's failure to manufacture and market the device. Perma has not met its burden of proof in this regard. The existence of a market is not proven where the product to be sold does not yet exist, and where its specifications and performance characteristics and cost and price are unknown. Damages awarded for lost sales of such a product must be reversed as being speculative.* *Hewlett v. Caplin*, 275 App. Div. 797, 797-98, 88 N.Y.S.2d 428, 428-29 (1st Dep't 1949), *aff'd without opinion*, 301 N.Y. 591, 93 N.E.2d 492 (1950).

* As Judge Duffy recognized, lost profits are ordinarily not recoverable in new venture cases even when the merchandise to be sold is in existence (Op 45; *Cramer v. Grand Rapids Show Case Co.*, 223 N.Y. 63, 119 N.E. 227 (1918)).

We described at pages 8-11, *supra*, the elaborate program of redesign and redevelopment which Perma contended, and Judge Duffy found, Singer "should have" undertaken in order to perfect the device and make it marketable. Perma, however, introduced absolutely no evidence defining the redesigned device, including no evidence on such critical points as performance, cost, and price. Perma did not introduce a single drawing, model, or verbal description of the redesigned device. Judge Duffy acknowledged the absence of evidence defining the redesigned device when he found that there was "inadequate proof" to determine the cost and price of that device (Op 57). Without proof of the market price of a device, finding the existence of a market for the device is pure speculation.

Since Perma did not meet its burden of defining the redesigned anti-skid device, *a fortiori*, Perma did not meet its burden of proving the existence of any market for that device. Additional factors, set forth below, specifically relating to either the OEM market or aftermarket support the foregoing conclusion by independently establishing that Perma failed to prove the existence of either an OEM market or an aftermarket for the Perma device.

3. Perma Did Not Prove the Existence of an OEM Market For the Perma Device

Perma has made no attempt to meet its burden of proof regarding the existence of an OEM market for the Perma device.

At trial Perma did not call a single marketing expert to testify that the OEMs would have purchased the Perma device. In its lengthy post-trial memorandum Perma did not argue that damages should be awarded for lost OEM sales. And in its appellate brief Perma virtually concedes that there was no proof of the existence of an OEM market by arguing that Judge Duffy did not make a finding regarding the fact of damage in the OEM market (P Br 91)

despite his having awarded Perma damages of \$2,371,166.97 plus interest for royalties on lost OEM market sales.*

In contrast to the absence of any evidence of an OEM market for the device, the record contains significant evidence that none existed. Several documents reflect that the OEMs evaluated and rejected early versions of the Perma device (DX 12; PX 25A, 57). Additional documents reflect that Ford and Kelsey-Hayes again evaluated and rejected the Perma device in 1966 (Tr 3328; DX 336; DX 335 for id, DX 337 for id).** Perma's argument that the device was rejected as a result of Singer's adding transfer and restrictor valves lacks merit (P Br 92 n.92). The device initially rejected by each of the OEMs predated the addition of the transfer and restrictor valves, and in 1966 Ford and Kelsey-Hayes tested the device both with and without the valves (DX 336; DX 335 for id, DX 337 for id).

It is evident from the foregoing that Perma did not meet its burden of proving that the existence of an OEM market for the Perma device was not speculative. Judge Duffy's damages award of \$2,371,166.97 plus interest for lost OEM sales, therefore, must be reversed. *Friedman v. Golden Arrow Films, Inc.*, 442 F.2d 1099 (2d Cir. 1971).

4. Perma Did Not Prove the Existence of an Aftermarket For the Perma Device

Perma has also failed to meet its burden of proving that the existence of an aftermarket for the Perma device was not speculative.

* Perma *buries* in a footnote the tenuous argument that a clause in the contract providing for royalties on OEM sales was proof that there would have been such sales (P Br 91-92 n.92). Judge Duffy disposed of a similar contract clause providing for licensee royalties by saying "damages on this last basis would be too speculative, no such licensing contracts having been negotiated" (Op 56).

** DX 335 for id and DX 337 for id were offered in evidence, but were erroneously rejected (Tr 3318-19, 3322-26, 3361-62, 5228-29, 5245, 5246-47).

Perma's argument that there existed an aftermarket for the Perma device relies almost exclusively on the fact that at the time the December contract was entered into Singer contemplated that there would be such a market (P Br 86, 88-89). Perma correctly notes that Judge Duffy's finding that an aftermarket existed rests on the same premise (P Br 86; Op 45-53). However, the mere fact that the parties hoped at the time they entered into the contract that there would be a market for the product does not prove that the existence of such a market is not speculative.

Judge Duffy and Perma both cite the same case, *For Children, Inc. v. Graphics International, Inc.*, 352 F. Supp. 1280 (S.D.N.Y. 1972), to support their fallacious contention (Op 45-47; P Br 86). *For Children* does not support this result. *For Children* simply stands for the rule of *Hadley v. Baxendale*, 156 Eng. Rep. 145 (Ex. 1854), that damages which have been proven to have resulted from a breach of contract cannot be recovered unless the parties contemplated those damages at the time they entered into the contract. 352 F. Supp. at 1283-1284.* Perma totally distorts this rule by arguing that the fact that the parties contemplated certain damages at the time they entered into a contract entitles the plaintiff to those damages regardless of whether the plaintiff has proven that it suffered them.

The language Perma quotes from *For Children*, "[t]he contemplation of the parties was that the entire order would be sold to the public," (P Br 86 quoting 352 F. Supp. at 1284) must be read in context. The fact of lost sales was not in issue. Rather, the parties disputed the profitability of the lost sales. That the court did not consider the parties' contemplation of future sales to be evidence of

* The court initially applied the rule of *Hadley v. Baxendale* to reject the plaintiff's theory of damages because that theory would have required the defendant "to assume the capital financing of plaintiff's business . . . which clearly was not within [the parties'] contemplation." 352 F. Supp. at 1283. The court then applied the rule of *Hadley v. Baxendale* a second time by noting that sales of the books were within the parties' contemplation. *Id.* at 1284.

the damages actually suffered is emphasized by the court's excluding that factor from its concise enumeration of the evidence upon which it based damages and by its calculating damages on the sale of "a substantial part" of the books although the parties had contemplated 100% sales. 352 F. Supp. at 1285.* *For Children*, therefore, does not support basing a finding that an aftermarket for the Perma device existed on the fact that Singer contemplated that such a market would develop.

The single most important fact regarding the existence of an aftermarket for the Perma anti-skid device is that the major automotive brake manufacturers had no anti-skid device sales in the aftermarket even though they sold such devices in the OEM market (see Op 42, 49; Tr 6998, 7425-26, 7777).

Faced with the above unassailable fact, Perma advances two specious and speculative arguments. The first, that the major brake manufacturers "did not attempt to penetrate the aftermarket" (P Br 90), at most leads to the inference that Kelsey-Hayes and Bendix, with concededly greater experience in the automotive industry than Singer (see P Br 25), had concluded that the market could not be profitably exploited. The second, that the Kelsey-Hayes and Bendix devices "may not have been suited to installation outside the factory" (P Br 90), is the rankest kind of speculation unsupported by any facts in the record: it is at least as

* It is worth noting that the actual result of the decision in *For Children* was not to award plaintiff the profits it had anticipated, but simply to restore the plaintiff to the position it would have been in had it never entered into the arrangement. The plaintiff had previously paid the defendant the sum of \$43,834.20 for the manufacture of the books and had incurred additional expenses of \$1,514.25 for total damages of \$44,348.45 (after a credit of \$1,000 for books sold). Judge Weinfeld's award of \$50,587.08 did no more than make plaintiff whole for its expenditures, the apparent net gain of \$6,238.63 plus legal interest being a reasonable value for the loss of use of the \$43,836.20 payment during the six years the defendant held it. In short, the parties were left in essentially the same position that Singer and Perma were in at the time Perma commenced suit.

logical to infer that these manufacturers concluded, as did Singer, that the marketing of an anti-skid device in the aftermarket was unwise unless it was absolutely fail-safe.

Perma's remaining arguments may be disposed of briefly. Perma's seven distribution contracts for the 1964 device (P Br 89) furnish no evidence of the existence of an aftermarket for the putative 1966 device. The fact that a few firms were willing to attempt distribution of a new device does not establish that the device would have been accepted by consumers. The 1964 devices, which were advertised as having "FAILSAFE OPERATION" (DX 8, p 2; DX 9), had all been recalled from those dealers as defective (PX 88A). It cannot be assumed that the dealers would have agreed in 1966 to distribute another Perma anti-skid device which could not have been so advertised. Similarly, Singer's one-year distribution contract with Monitor Enterprises (P Br 89) provides no basis for finding the existence of an aftermarket for the 1966 Perma device. It would be sheer speculation to assume that Monitor would have exercised its option to renew the contract in 1966 (PX 64 § 9, at p 7), after the devices previously delivered to Monitor had been recalled and after further shipments had been suspended because of defects (PX 88A).

Perma also points to the interest Phillips Petroleum expressed in the Perma device as reflected in PX 25A (P Br 89). Perma neglects to state that subsequent to the date of PX 25A, Phillips tested the Perma device with mixed results and concluded both that "the 'Perma Anti-Skid Control' offered no improvement in stopping distance up to 45 mph on the wet road surfaces used for these tests" and that "further improvement in steering control would be desirable" (DX 21, p 3). Perma also neglects to mention that Phillips never entered into a contract to handle the Perma device (Tr 5947). Phillips' early interest in the Perma device was thus negated by later events.

The foregoing amply demonstrates that Perma did not meet its burden of proving that the existence of an after-

market for the Perma device was not speculative. Judge Duffy's damages award of \$2,962,256.97 plus interest for lost aftermarket sales must be reversed.

B. The 1964 Projections Do Not Satisfy Perma's Additional Burden of Proving a Non-Speculative Basis For Calculating Damages

1. The 1964 Projections Do Not Provide a Non-Speculative Basis For Calculating Lost Sales in the Aftermarket

Our principal brief sets forth the governing law that the plaintiff has the burden of proving a non-speculative basis for calculating the extent of damages actually incurred (S Br 52-53). As the Supreme Court stated in the passage Perma quotes in its brief: "damages may not be determined by mere speculation or guess" (P Br 96-97 *quoting Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 563 (1931)). The New York Court of Appeals recently applied this principle in the controlling case of *Freund v. Washington Square Press, Inc.*, 34 N.Y.2d 379, 314 N.E.2d 419, 357 N.Y.S.2d 857 (1974),* when it set aside a judgment because the plaintiff failed to meet its burden of proving a non-speculative basis for calculating damages. A further review of the record in the instant case establishes that Perma failed to meet this burden.

Judge Duffy based his calculation of Perma's damages for lost sales in the aftermarket entirely upon a 1964 Singer document containing predictions of future Perma anti-skid device aftermarket sales, DX 191 (Op 50-55).** The 1964

* See S Br 52-53 for a full discussion of *Freund v. Washington Square Press, Inc.*

** Perma, itself, impliedly conceded that the 1964 projections were a speculative basis upon which to calculate damages when it described DX 191 as "a self-serving memorandum Kloby wrote his superiors" (P Br 39) and referred to two documents which incorporated the 1964 projections, PX 59 and PX 120, as "speculative and totally self-serving." (P Br 105)

projections are insufficient to satisfy Perma's burden of proof.

Autowest, Inc. v. Peugeot, Inc., 434 F.2d 556 (2d Cir. 1970), the sole case cited by either Judge Duffy or Perma as authority for relying upon the 1964 projections (Op 51-52; P Br 98-99), does not support reliance upon those projections.

Both Perma and Judge Duffy point to only one aspect of this Court's decision in *Autowest*, that two "indicia of reliability" to be considered in determining the admissibility of projections are (1) the projections having been prepared by experienced businessmen and (2) the projections having been prepared as aids to making a major business decision (Op 51-52; P Br 98-99). Judge Duffy and Perma totally ignore the other half of the equation this Court applied—that is projections are proper evidence only if (1) the projections rest on a valid factual and theoretical basis, and (2) the record contains evidence substantiating that basis. 434 F.2d at 566. The 1964 Perma device projections do not satisfy these criteria, whereas the projections in *Autowest* did.* *Autowest*'s witnesses "set out at length the bases from which they derived their figures" 434 F.2d at 566, while the present record lacks any evidence as to what bases underlie the 1964 projections, much less any evidence substantiating those unknown bases.

The absence of subsequent history supporting the Perma device projections produces a second critical distinction between *Autowest* and the instant case. In *Autowest* the Court only partially relied upon the projections, finding "[a]dditional support" in subsequent sales history which closely coincided with *Autowest*'s projections. 434 F.2d at

* *Herman Schwabe, Inc. v. United Shoe Machinery Corp.*, 297 F.2d 906 (2d Cir.), *cert. denied*, 369 U.S. 865 (1962), is a more apt precedent. There this Court refused to allow damages to be calculated using projections which rested on invalid bases.

567. Judge Duffy, on the other hand, relied entirely upon the projections in the face of subsequent sales history which completely discredited the projections (Op 50-55). The 1964 prediction of selling a total of 750,000 Perma anti-skid units in the aftermarket during the first five years (DX 191, pp 5-6) was totally contradicted by Kelsey-Hayes' and Bendix' complete lack of anti-skid device sales in that market* (see Op 42, 49; Tr 6998, 7425-26, 7777).

Further, the 1964 projections do not provide a non-speculative basis for awarding damages because those projections relate to the unperfected 1964 Perma device while damages were awarded for lost sales of an undefined redesigned device (see pp 29-30, *supra*). Projected sales of one product do not provide a non-speculative basis for calculating lost sales of another product unless the products are proven to be substantially identical. *Gruber v. S-M News Co.*, 126 F. Supp. 442 (S.D.N.Y. 1954); *Broadway Photoplay Co. v. World Film Corp.*, 225 N.Y. 104, 121 N.E. 756 (1919); *K.&R. Film Co. v. Brady*, 104 Misc. 667, 172 N.Y.S. 268 (App. T. 1st Dep't 1918); see *Herman Schwabe, Inc. v. United Shoe Machinery Corp.*, 297 F.2d 906 (2d Cir.), *cert. denied*, 369 U.S. 865 (1962). The fact that the 1964 device had to be redesigned (see pp 7-11, *supra*) precludes any claim that it would be substantially identical to the unperfected 1964 device.

Perma tries to circumvent the above facts and authorities by rejecting Judge Duffy's finding that the 1964 Perma device was unmarketable and arguing that the device did not need to be redesigned (P Br 85, 100-01). As we have shown (see pp 7-8, *supra*), this strategy both distorts

* Perma cites the lower sales projections contained in the Hill Report to support the 1964 projections (P Br 98). The Hill Report projections cannot support the 1964 projections as both projections suffer from the same deficiencies—no evidence in the record establishing the bases for the projections, no evidence in the record establishing the bases' validity, and inconsistent subsequent history.

Judge Duffy's findings and denies the testimony of Perma's own expert.*

The foregoing establishes that the 1964 projections, which provided the sole basis for Judge Duffy's calculating damages for lost sales in the aftermarket, did not satisfy Perma's burden of proving a non-speculative basis for that calculation. Judge Duffy's damages award of \$2,962,256.97 plus interest for lost aftermarket sales must be reversed.

2. The 1964 Projections Do Not Provide a Non-Speculative Basis For Calculating Lost Sales in the OEM Market

The 1964 projections also provided the sole basis for Judge Duffy's calculating damages for lost sales in the OEM market (Op 53-56).**

The 1964 projections did not satisfy Perma's burden with respect to lost OEM sales for all the reasons just

* In an attempt to excuse its failure to prove cost and price of the redesigned device (S Br 49, 53, 56), Perma proposes two fallacious arguments. The first is that Perma's royalties were based on a fixed \$51 factory invoice price (P Br 101). The factory invoice price was not fixed at \$51 except in the very limited sense that the price was fixed at that level (actually \$47.22, *see* S Br 60-61) for deliveries to Monitor Enterprises during 1965 (PX 64 § 7, at p 6). However, there would have been no deliveries until 1966 (Op 56), at which time a new price would have applied (PX 64 § 7, at p 6). The second argument is that the higher cost of the perfected device necessarily would have increased Perma's royalties (P Br 101). Not only is this argument pure speculation, but it ignores the basic law of economics that as the price of a product increases, the number of units sold decreases.

** There is no merit to Perma's contention that "the trial court did not use [the 1964 projections] as a basis for estimating lost royalties attributable to OEM market sales." (P Br 102) Not only did Judge Duffy state that the 1964 projections provided the best basis for computing damages (Op 53), but he specifically applied the royalty rate for OEM sales to a portion of the estimated sales set forth in those projections (Op 53, 56). Perma's failure to suggest any other evidence from which to calculate OEM market damages illustrates the absence of any basis other than the 1964 projections.

discussed plus one additional reason—the 1964 projections do not pertain to that market (*see* S Br 57). *See Herman Schwabe, Inc. v. United Shoe Machinery Corp.*, 297 F.2d 906 (2d Cir.), *cert. denied*, 369 U.S. 865 (1962); *Broadway Photoplay Co. v. World Film Corp.*, 225 N.Y. 104, 121 N.E. 756 (1919).

The speculation involved in using the 1964 projections to calculate damages for lost OEM market sales is apparent from Judge Duffy's statement that there is "no adequate proof on which to" attribute part of the sales estimated in the 1964 projections to the OEM market (Op 56). A comparison of Kelsey-Hayes', Bendix's and General Motors' actual OEM market sales to the sales Judge Duffy held the Perma device would have experienced in the OEM market further emphasizes how speculative Judge Duffy's calculations were (*see* S Br 58-59). From 1968 through March, 1974 the actual total OEM market sales of all anti-skid device manufacturers was 275,161 units, of which only 63,389 units were purchased by consumers as options (Tr 7458; Ct X 6). In contrast, the damages awarded Perma were calculated on lost OEM market sales of 821,991 Perma devices from 1968 through December, 1974, which represents sales of approximately 724,310 Perma devices during the 1968-March, 1974 period (*see* S Br 58-59).

The 1964 projections, therefore, did not satisfy Perma's burden of proving a non-speculative basis for calculating damages for lost OEM market sales. Judge Duffy's damages award of \$2,371,166.97 plus interest for lost OEM market sales must be reversed.

CONCLUSION

The judgment below should be reversed and the complaint dismissed.

Respectfully submitted,

WINTHROP, STIMSON, PUTNAM & ROBERTS

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Attorneys for Defendant-Appellant

Dated: January 22, 1976

UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

- - - - - x

PERMA RESEARCH & DEVELOPMENT COMPANY, :

Plaintiff-Appellee, :

Docket No. 75-7362

v. :

THE SINGER COMPANY, :

Defendant-Appellant. :

- - - - - x

STATE OF NEW YORK)

: ss.:

COUNTY OF NEW YORK)

Hugh G. Radigan, being duly sworn, deposes and says
that deponent is not a party to this proceeding, is over 18 years
of age, and employed by Winthrop, Stimson, Putnam & Roberts,
attorneys for appellant. That on the 22nd day of January, 1976,
deponent served the reply brief of appellant upon,

Poletti Freidin Prashker Feldman
& Gartner
777 Third Avenue
New York, New York 10017

by delivering and leaving six copies with Karen Prohaska, receptionist
on the 23rd floor, at 5:15 p.m.

Hugh G. Radigan
Hugh G. Radigan

Sworn to before me this
23 day of January, 1976.

James C. McMahon, Jr.
Notary Public

JAMES C. McMAHON, JR.
Notary Public, State of New York
No. 31-4509064
Qualified in New York County
Commission Expires March 30, 1978

File No. 75-7362

Year

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REPLY BRIEF
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